UltraWAVE Micro BS Plus

GSM Base Station Controller and Base Transceiver Station

The UltraWAVE Micro BS Plus is an integrated base station controller (BSC) and base transceiver station (BTS) in a single enclosure. ADC's Micro BS Plus can support up to four external BTSs with the total capacity ranging from a few hundred to up to 1400 subscribers.

UltraWAVE MSC, BSC and BTS work hand-in-hand to reduce the total cost of network ownership, providing a network growth path for existing and future customers, and expand the addressable markets of ADC's GSM products.

Features:

- Integrated TRAU function
- Star or daisy chain configuration
- SMS support
- Frequency hopping supported
- Sectorization supported
- GPRS supported (CS-1, CS-2, CS-3, CS-4)
- 2-way and 3-way combining options available

SPEC SHEET

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The Micro product line provides a compact and cost-effective platform, which helps lower the cost of network ownership. They are easy to upgrade or repair in the field and provide a range of new monitoring and control functions. The UltraWAVE Micro BTS supports up to six TRXs in one chassis or up to four with external BTSs. With a single compact chassis, it can support an S222 site. It has the industry leading power amplifier at 50 Watts when configured for 850, 900, 1800 and 1900 MHz GSM networks. Micro supports all the key BTS features, such as frequency hopping, sectorization, and GPRS. It provides sufficient capacity for rural and urban coverage (up to S222) and is flexible enough to scale from O1 to S222 supporting the popular BTS configurations, S111 and S222.

The Micro BS Plus increases the BTS coverage with industry leading power output (50W measured at antenna port without combining). Receive sensitivity with antenna diversity is up to -114 dBm. Designed for easy expansion of the BTS capacity, the Micro BS Plus is field upgradable. Operators can start with a small system and pay as they go to add capacity.

The Micro BTS is designed for low cost maintenance with remote monitoring, external alarms, overheating protection, redundant power supply, field replaceable modules, and easy front access. It can reduce the on-going operation expenses for the operators. An integrated turn-key BTS package option is available with transmission, battery, and other site equipment.

Product Highlights

- Available in 850, 900, 1800 and 1900 MHz frequency bands
- Frequency hopping
- Sectorization
- General Packet Radio Service (GPRS)
- Dynamic power control (uplink and downlink)
- Significantly improved BTS sensitivity: -114 dBm (optimal combining diversity) or -111 dBm (no diversity)
- Remote monitoring
- External alarms for third party equipment are also supported
- Optional redundant power supply with PSU failure alarm support
- Integrated full rack solution available: UltraWAVE integrated with additional on-site equipment such as transmission, battery backup, etc. in one rack
- Common hardware modules: single slot TRX, processor card, RF module
- GSM EFR voice codec

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Specifications

BTS Configurations (single cabinet):	S111, S222, O4, O6
Frequency Support:	GSM 850 MHz, GSM 900 MHz, DCS 1800 MHz, PCS 1900 MHz
CAPACITY	
Number of TRXs:	6 internal; Up to 24 external
Number of Traffic Channels:	44
Traffic Capacity:	34.68 Erlangs @ 2% GoS (O6) 1380 subscribers @ 25mE
Output Power:	50 Watts
RF Receiver Sensitivity:	-111dBm without diversity -114 dBm with diversity
INTERFACES	
RF Interface:	GSM Compliant Um Interface; GSM Spec. 04.06, 04.08, 05.01- 05.05, 05.08 & 05.10; GSM spec 03.64, 04.60 (Rel 98)
BSC Link:	Abis Interface, GSM spec. 04.08, 08.58, 12.21
Transmission:	Dual Port G7.03 compliant E1 75/120 Ohm; Dual Port T1.403 compliant T1 100 Ohm
Ethernet:	10/100 Mbps Ethernet, RJ-45 connector
Serial Port:	RS232, RJ-45 connector
OPERATION	
Remote Monitoring:	Monitor temperature, PA, fan, PSU, VWSR from central office; External alarms supported
Overtemp Protection:	Automatic detection and intervention
Access to Equipment:	Front and Rear Access
Field Support:	All modules are field replaceable
Capacity Expansion:	Field upgradable Support of various upgrades
POWER SUPPLY	
Input Voltage:	110/220 VAC, -48 VDC
Redundancy:	Redundant power supply
Alarm:	PSU failure alarm reported OMC
MECHANICAL	
Rack Mount:	Versatile mounting options for 19", 23" and 24" racks
Dimensions (HxWxD):	1051 x 560 x 647 mm (41.8 x 22.05 x 25.5 inches)
Weight:	213 kg (470 lbs)
OPERATING ENVIRONMENT	
Temperature:	-5° to 55° C (23° to 131° F)
Humidity (non-condensing):	10% to 90%

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Website: www.adc.com

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